

REMARKS

This amendment is filed with an RCE, as the amendment to claim 18 and new claim 60 is expected to require further consideration and/or search.

This application is amended in a manner to place the application in condition for allowance.

Status of the Claims

Claim 18 is amended to include ranges of claim 41.

Claim 42 is amended to depend from claim 41.

Claim 48 is amended to depend from claim 43, and to correct the amount of N-formal recited, e.g., in a manner consistent with Table 1.

Claim 60 is new and includes a composition shown in Table 1.

Claims 35, 41 and 45-47 have been cancelled without prejudice.

Claims 18, 21-25, 30, 31, 36-40, 42-44, 48, 57, 58 and 60 remain pending.

Claims 22, 24, and 25 stand withdrawn for being directed to non-elected subject matter.

Claim Rejections-35 USC §103

Claims 18-21, 30, 31, 35-48, 57 and 58 stand rejected under 35 U.S.C. 103(a) as being unpatentable over BEILFUSS et al.

U.S. 2001/0021711 A1 (BEILFUSS) in view of ECANOW et al. US 4,452,780 (ECANOW).

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over BEILFUSS in view of ECANOW and as evidenced by "Grotan BK" on CHEMINDUSTRY.COM (CHEMINDUSTRY).

These rejections are respectfully traversed for the reasons that follow.

The claimed preservative of independent claim 18 comprises (a) about 90% to about 99% N,N'-methylenebis(5-methyloxazolidine) (b) about 1% to about 10% urea. The preservative comprises neither an iodopropynyl compound nor a derivative of 1H-benzimidazol-2-carbamic acid.

BEILFUSS teaches bactericidal and fungicidal liquid preparations for industrial products comprising at least one bactericidal N-formal, with N,N'-methylenebis (5-methyloxazolidine) being preferred, at least one fungicide, and at least one stabilizer. The preparations are free from iodopropynyl compounds and derivatives of benzimidazole.

BEILFUSS does not disclose urea, and ECANOW was offered for teaching urea as being effective against fungus.

The position maintained in Official Action was that it would have been obvious to add urea to the composition of BEILFUSS, as there would have been a reasonable expectation that said urea would impart effective fungicidal properties.

As to the particular percentages recited, the position of the Official Action was that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the composition and include the particular percentages claimed by applicant."

In the Response to Arguments, the Official Action further offers BREYER et al. US 5,684,118 (BREYER) as evidence to support the assertion that urea is a well known formaldehyde scavenger.

However, the combination (with or without BREYER) fails to render obvious the claimed composition for the following reasons:

I. BEILFUSS and ECANOW have different compositions and purposes.

ECANOW discloses a composition which is mainly water, i.e., an aqueous composition comprising 10-40% weight per volume of urea. This composition is the final product "which possesses antiseptic, bacteriacidal, germicidal, fungicidal and viricidal properties". (See, e.g., column 4, lines 23-48, column 3, lines 24-26 and column 5, lines 10-13).

BEILFUSS, however, discloses a composition that is anhydrous, or at least has a low content of water ([0024]). This composition, however, is not in need of the fungicide, but rather this composition includes the fungicide to treat an industrial product. The composition is effective to treat the industrial

product in amounts of 0.01 to 10%. ([0017]). BEILFUSS discloses that the selection of the fungicide is important due to potential incompatibilities ([0005]).

As urea is neither disclosed nor suggested as an equivalent to the fungicides in BEILFUSS for the same purpose as BEILFUSS, there would have been no predictable result and no expectation of success in using urea based on ECANOW and BEILFUSS alone.

Indeed, this non-equivalence is further evidenced by the amount of fungicide required in both documents. As noted above, ECANOW teaches that urea is effective at 10-40% in the final product. BEILFUSS, however, discloses an effective amount is 0.01 to 10%, which includes both the fungicide and N-formal. That is, in order to achieve a desirable result from urea, ECANOW suggests that one must exceed the total amount of preservative taught by BEILFUSS.

Thus, one would have been discouraged from making the substitution given that the selection of the fungicide is important concerning its effect on the active ingredient.

II. The combination of BEILFUSS and ECANOW fails to teach the claimed range and reduction of formaldehyde.

The Official Action asserted that it have been obvious to one of ordinary skill in the art at the time the invention was

made to optimize the composition and include the particular percentages claimed by applicant.

However, even if one were to combine the teachings of ECANOW and BEILFUSS, there is no suggestion to optimize the resulting composition to arrive at the claimed invention and the disclosed results.

In light of the discussion above in I., at best, the combination teaches adding 10-40% urea to an industrial product, not to about 1% to about 10% to composition comprising about 90% to about 90% of the recited N-formal.

Indeed, there is no suggestion of adding an amount as recited in claims 18, 42, 43, 44, 48 and new claim 60 to reduce the formaldehyde emission of such a composition. See, e.g., Table of the specification.

Thus, the proposed combination of BEILFUSS and ECANOW fails to provide any guidance for optimizing the amount of urea to be added to the preservative composition of BEILFUSS to even approach the claimed composition, and the combination fails to suggest the result of reduced formaldehyde emission.

**III. One would have been discouraged
from adding urea to BEILFUSS in light of BREYER.**

BREYER was not included as part of the ground of rejection. However, even if one had BREYER when considering the modification of BEILFUSS, BREYER does not provide guidance to approach the claimed invention.

BREYER was mentioned as evidence that urea controls formaldehyde emissions from resins by reducing free formaldehyde content in the uncured resin. That is, by reducing the free formaldehyde in the composition, the emission of formaldehyde during heating/curing of the resin is reduced. See, e.g., lines 41-50 of column 1 of BREYER.

BEILFUSS discloses that the active ingredient content, which may be negatively impacted by some fungicides, impacts the effectiveness of the composition ([0005]):

However, incompatibilities are frequently found between N-formals and fungicides, which are evident from the decrease in active ingredient content, resulting in inadequate effectiveness. These problems arise irrespective of where the components N-formal and fungicide are added to the industrial products simultaneously or separately, i.e., during storage of the preservative and in the product treated therewith. (Emphasis added.)

As discussed relative to the prior art in the present specification, the formaldehyde content from the N-formal, such as in GROGAN BK as taught by CHEMINDUSTRY, in a preservative for industrial products impacts the efficacy:

Grotan WS is, due to the lower content of formaldehyde, somewhat less effective than Grotan BK, and is also more odour-intensive and significantly more expensive than Grotan BK. (Specification page 5, lines 7-10.) Emphasis added.

The biocidal effectiveness [of commercial products Mar 71 or Grotan OX or Grotamar 71] is very good due to the comparatively high formaldehyde content. However, the odour is perceived as a disadvantage during use. In particular, the pungent odour reminiscent of formaldehyde and the formaldehyde emission have been criticized. (Specification page 5, lines 19-24.) Emphasis Added.

Thus, in light of the function of urea taught by BREYER, one would have been strongly discouraged from adding urea to the composition of BEILFUSS as a fungicide, as one would have

expected a reduction in formaldehyde content of or the active ingredient content.

If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

Therefore, the reasons above, the proposed combination of the combination of BEILFUSS and ECANOW (with or without BREYER) fails to render obvious independent claim 18, and dependent claims 21-25, 30, 31, 36-40, 42-44, 48, 57, 58 and 60.

Conclusion

In view of the amendment to the claims and the foregoing remarks, this application is in condition for allowance at the time of the next Official Action. Allowance and passage to issue on that basis is respectfully requested.

Should there be any matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any

overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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